

Form PTO-1449 (Modified)				Atty Docket No.: P005158.P004X	Serial No.: 09/837,337			
List of Patents and Publications Statement (Use several sheets if necessary)				Applicants: Li et al.	RECEIVED SEP 25 2001 Technology Center 2600			
				Filing Date: April 17, 2001				
REFERENCE DESIGNATION			U.S. PATENT DOCUMENTS					
Exam. Initial		Date	Document Number	Name	Class	Sub-Class	Filing Date	
D72		05/23/00	6,067,290	Paulraj et al.	370	329	07/30/99	
		05/16/00	6,064,694	Clark et al.	375	224	09/30/97	
		05/16/00	6,064,692	Chow	375	219	06/20/97	
		04/18/00	6,052,594	Chuang et al.	455	450	04/30/97	
		03/21/00	6,041,237	Farsakh	455	450	04/02/98	
		12/21/99	6,005,876	Cimini, Jr. et al.	370	525	09/24/96	
		10/26/99	5,973,642	Li et al.	342	378	04/01/98	
D72		09/21/99	5,956,642	Larsson et al.	455	449	11/25/96	
FOREIGN PATENT DOCUMENTS								
No.		Document No.	Date	Country	Name	Class	Sub-Class	Trans-lation
OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)								
D72		BENDER et al., CDMA/HDR: A Bandwidth-Efficient High-Speed Wireless Data Service for Nomadic Users, IEEE Communications Magazine, July 2000, pp. 70-87.						
D72		TSOULOS, G.V., Smart Antennas For Mobile Communication Systems: Benefits And Challenges, Electronics & Communication Engineering Journal, April 1999, pp. 84-94.						
D72		SHAD et al., Indoor SDMA Capacity Using a Smart Antenna Basestation, 1997 IEEE, pp. 868-872.						
D72		FARSAKH, CHRISTOF and NOSSEK, JOSEF A., On the Mobile Radio Capacity Increase Through SDMA, no date (after 1997).						
D72		FRULLONE et al., PRMA Performance in Cellular Environments with Self-Adaptive Channel Allocation Strategies, IEEE Transactions on Vehicular Technology, November 1996, pp.657-665 Vol. 45, No. 4.						
D72		XU, GUANGHAN and LI, SAN-QI, Throughput Multiplication of Wireless Lans for Multimedia Services: SDMA Protocol Design, 1994 IEEE, pp. 1326-1332.						
D72		WARD, JAMES and COMPTON, R. TED, JR., High Throughput Slotted ALOHA Packet Radio Networks with Adaptive Arrays, IEEE Transactions on Communications, March 1993, pp. 460-470, Vol. 41, No. 3.						
Examiner <i>Zhuohui Chen</i>			Date Considered <i>4-21-04</i>					
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant								

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Substitute for Form 1449A/PTO (Modified)		<i>Complete if Known</i>	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Application Number	09/837,337
		Filing Date	April 17, 2001
		First Named Inventor:	Xiaodong Li
		Group Art Unit	2681
		Examiner Name	Unassigned
Sheet	1	of	3
		Attorney Docket Number	005158.P004X

~~U.S. PATENT DOCUMENTS~~

FOREIGN PATENT DOCUMENTS

Examiner Signature	Fleisch, Jeff	Date Considered 4-21-04	
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¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard S.3). ⁴For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 2 **of** 2 **Attorney Docket Number**

Examiner Signature	Florida release	Date Considered	4-21-04
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT <small>(use as many sheets as necessary)</small>				Application Number	09/837,337	
				Filing Date	04/17/2001	
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				Group Art Unit	2681	
				Examiner Name	Unassigned	
Sheet	1	of	2	Attorney Docket Number	005158.P004X	
U.S. PATENT DOCUMENTS						
Exam. Initial*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Code ²	Kind (If known)			
H		6,377,632	B1	Paulraj et al.	04/23/2002	
I		6,131,016		Greenstein et al.	10/10/2000	
J		6,026,123		Williams	02/15/2000	
K		5,914,933		Cimini et al.	06/22/1999	
L		5,726,978		Frodigh et al.	03/10/1998	
M		5,708,973		Ritter	01/13/1998	
N		5,555,268		Fattouche et al.	09/10/1996	
O		5,504,775		Chouly et al.	04/02/1996	
P		5,479,447		Chow et al.	12/26/1995	
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						SEP 24 2002
						Technology Center 2600

Examiner Signature		Date Considered 4-21-04
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Examiner Signature	Rexby, Julie	Date Considered	4-21-04
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CL 30 2002

A circular black ink stamp with a double-line border. The outer ring contains the text "U.S. PATENT & TRADEMARK OFFICE" at the top and "REGISTRATION CERTIFICATE" at the bottom. The inner circle contains the date "OCT 30 2002" in the center, with "EXAMINER" written vertically along the left side and "SEARCHED" vertically along the right side.

Application Number	09/837,337
Filing Date	04/17/2001
First Named Inventor:	Xiaodong Li
Group Art Unit	2681
Examiner Name	Unassigned
Attorney Docket Number	005158.P004X

Sheet

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of

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Attorney Docket Number

005158.P004X

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**Examiner
Signature**

~~Stedder & Lee~~

Date Considered

4-21-04

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Group Art Unit	2681
Examiner Name	Unassigned

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Sheet 2 of 2 Attorney Docket Number 005158.P004X

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OTHER ART - NO PATENT LITERATURE DOCUMENTS

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Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
H-Z	Y	GRUENHEID, R. et al: "Adaptive Modulation and Multiple Access for the OFDM Transmission Technique", Wireless Personal Communications, Kluwer Academic Publishers, NL, Vol. 13, NR. 1/2, Year 2000, pages 5-13 XP000894156, ISSN: 0929-6212.
	Z	MOTEGI, M. et al.: "Optimum Band Allocation According to Subband Condition for BST-OFDM" 11 th IEEE International Symposium on Personal Indoor and Mobile Radio Communications, vol. 2, 18-21 September 2000, pages 1236-1240, XP002213669, Piscataway, NJ, USA, ISBN: 0-7803-6463-5.
	AA	KAPOOR, S. et al.: "Adaptive Interference Suppression in Multiuser Wireless OFDM Systems Using Antenna Arrays" IEEE Transactions on Signal Processing, vol. 47, no. 12, December 1999, pages 3381-3391, XP000935422, IEEE, New York, USA, ISSN: 1053-587X.
	BB	YE LI, et al.: "Clustered OFDM with channel estimation for high rate wireless data", Mobile Multimedia Communications, 1999. (MOMUC '99). 1999 IEEE International Workshop on San Diego, CA, USA, IEEE, US, 15 November 1999, pages 43-50, XP010370695, ISBN: 0-7803-5904-6.
	CC	NOGUEROLE, R. et al.: "Improved Performance of a Random OFDMA Mobile Communication System" Vehicular Technology Conference, 1998. VTC 98. 48 th IEEE Ottawa, Ontario, Canada, 18-21 May 1998, (1998-05-18), pages 2502-2506, XP010288120, ISBN: 0-7803-4320-4.
H-Z	DD	KINUGAWA, Y. et al.: "Frequency and Time Division Multiple Access with Demand-Assignment Using Multicarrier Modulation for Indoor Wireless Communications Systems", IEICE Transactions on Communications, Institute of Electronics Information and Comm. Eng. Tokyo, Japan, vol. E77-B, NR. 3, March 1994, pages 396-402, XP000451014, ISSN: 0916-8516.

Examiner Signature	<i>Zewdu Aboelela</i>	Date Considered	<i>4-21-04</i>
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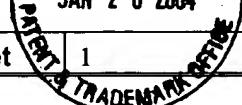
¹Unique citation designation number. ²Applicant is to place a check mark here if English language Translation is attached.

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Sheet	1	of	1	Attorney Docket Number	005158.P004X
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U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (If known)			
UR-2		US- 5,734,967		3/31/1998	Kotzin et al.	
		US- 5,886,988		3/23/1999	Yun et al.	JAN 29 2004
		US- 5,887,245		3/23/1999	Lindroth et al.	
		US- 5,933,421		8/3/1999	Alamouti, et al.	
		US- 6,061,568		5/9/2000	Dent	
		US- 6,108,374		8/22/2000	Balachandran et al.	
		US- 6,226,320 B1		5/1/2001	Hakkinen et al.	
		US- 6,366,195 B1		4/2/2002	Harel et al.	
		US- 6,477,158 B2		11/5/2002	Take	
		US- 2003/0067890 A1		4/10/2003	Goel et al.	
UR-7		US- 2003/0169824 A1		9/11/2003	Chayat	Technology Center 2600
		US-				
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FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
UR-2	JP 06029922		2/4/1994	Mitsuru et al.		

Examiner Signature	<i>Zerbe, Blakey</i>	Date Considered	<i>4-21-04</i>
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This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS.

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